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Office Action Dated December 29, 2004

### **REMARKS**

Reconsideration is respectfully requested in view of the above amendments and following remarks. Claims 1-15 have been amended editorially. New claim 24 incorporates limitations recited in claim 1 and the specification. No new matter has been added. Claims 1-15 and 24 are pending.

Claims 1-15 are rejected under 35 U.S.C. § 112, first paragraph. Claims 1-15 are rejected under 35 U.S.C. § 112, second paragraph. Claims 1-7, 14 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tschan et al. (US 4,778,845) in view of Kunert (US 4,910,071) and/or Swanson et al. (US 6,054,001). Claims 8-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tschan et al. in view of Kunert and/or Swanson et al. as applied to claim 1, and further in view of Landrock (Adhesives Technology Handbook). Claims 8, 10 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tschan et al. in view of Kunert and/or Swanson et al. as applied to claim 1, and further in view of Hill et al. (US 5,948,194) and/or Duck et al. (US 5,064,494). Applicants respectfully traverse these rejections.

#### **Claim rejections - 35 U.S.C. § 112**

##### **112, First Paragraph**

Claims 1-15 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Office Action states the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors at the time the application was filed, had possession of the claimed invention. Specifically, claim 1 recites "wherein little to no curing of the adhesive bonding material occurs during the heating in the dispensing device stage". Claim 1 has been amended to delete -- wherein little to no curing of the adhesive bonding material occurs during the heating in the dispensing device stage--. In light of the amendment, Applicants respectfully request this rejection be withdrawn.

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112, Second Paragraph

Claims 1-15 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "wherein little to no curing of the adhesive bonding material occurs during the heating in the dispensing device stage" in claim 1 is objected to. As note above, claim 1 has been amended to delete the above phrase. In addition, the phrase "the heating in the dispensing device stage" is objected to as having insufficient antecedent basis. Claim 1 has also been amended to delete this phrase.

The phrase "the desired temperature" in claim 5 is objected to as having insufficient antecedent basis. Claim 5 has been amended to recite "the predetermined level".

The phrase "a minor degree of curing of the adhesive bonding material occurs during the heating in the dispensing device" in claim 7 is objected to as being unclear. As claim 7 depends from claim 1, claim 1 has been amended to delete --wherein little to no curing of the adhesive bonding material occurs during the heating in the dispensing device stage--. In addition, the phrase "the heating in the dispensing device" is objected to as having insufficient antecedent basis. Claim 7 has been amended to recite "the period of heating in the dispensing device".

In light of the amendments made above and the remarks offered herein, Applicants respectfully request withdrawal of this rejection.

Claim rejections - 35 U.S.C. § 103

Tschan, Kunert and/or Swanson

Claims 1-7, 14 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tschan et al. (US 4,778,845) in view of Kunert (US 4,910,071) and/or Swanson et al. (US 6,054,001). Applicants respectfully assert that Tschan in view of Kunert and/or Swanson fail to teach or suggest the elements of the independent claim 1, which claims 2-7, 14 and 15 are dependent upon. Therefore, claims 1-7, 14 and 15 are not obvious over Tschan in view of Kunert and/or Swanson.

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Applicants respectfully assert that the Examiner cannot establish a *prima facie* case of obviousness with respect to the pending claims. In order to establish *prima facie* obviousness, three basic criteria must be met, namely: (1) there must be some suggestion or motivation to combine the references or modify the reference teachings; (2) there must be some reasonable expectation of success; and (3) the reference or references when combined must teach or suggest each claim limitation.

The claims recite a method securing a panel with a moisture cure polyurethane adhesive bonding material, using a hand-held operator manipulatable dispensing device to dispense the adhesive bonding material via a nozzle of the dispensing device. The claims also recite heating the adhesive bonding material present in the nozzle with an on-board heater device positioned and configured to heat the adhesive present in the nozzle. The claims further recite subjecting the bonding material to a predetermined temperature regime by heating the adhesive bonding material in the dispensing device to a predetermined level while present in the nozzle. This occurs prior to dispensing from the nozzle of the device and a subsequent period of curing in-situ in contact with the glazing panel at a temperature significantly below the heating temperature level. The claims additionally recite the curing of the moisture cure polyurethane adhesive material occurs following the heating stage and dispensing from the nozzle.

Neither Tschan, Kunert nor Swanson teach or suggest the drive away time of a vehicle can be reduced if the polyurethane adhesive bonding material is heated prior to dispensing and then left to undertake a normal "moisture" (humidity) cure or that the adhesive needs to be rapidly dispensed in a controlled manner and a consistent heating regime applied in uncontrolled environments such as repair shops or the outdoors. Rather, Tschan, in particular teaches heat cured polyurethane which once heated bonds immediately. There is no suggestion of cure by ambient moisture in Tschan. Further, both Kunert and Swanson also teach heat activatable adhesives and not adhesives cured with ambient moisture.

Tschan, Kunert and/or Swanson do not teach or suggest a method of securing a panel with a moisture cure polyurethane adhesive bonding material, using a hand-held operator manipulatable dispensing device to dispense the adhesive bonding material via a nozzle of the

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dispensing device. Furthermore, Tschan, Kunert and/or Swanson do not teach or suggest heating the adhesive bonding material present in the nozzle with an on-board heater device positioned and configured to heat the adhesive present in the nozzle. Moreover, Tschan, Kunert and/or Swanson do not teach or suggest subjecting the moisture cure polyurethane bonding material to a predetermined temperature regime by heating the adhesive bonding material in the dispensing device to a predetermined level while present in the nozzle and a subsequent period of curing in-situ in contact with the glazing panel at a temperature significantly below the heating temperature level. Furthermore, Tschan, Kunert and/or Swanson do not teach or suggest curing of the moisture cure polyurethane adhesive material occurs following the heating stage and dispensing from the nozzle. These features provide for a method of securing a panel with a moisture cure polyurethane adhesive bonding material, using a hand-held operator manipulatable dispensing device so that the drive away time of the vehicle can be reduced. The method also provides the ability to rapidly dispense the moisture cure polyurethane bonding material in a controlled manner with a consistent heating regime in uncontrolled environments such as repair shops or the outdoors.

There is no motivation or teaching to modify Tschan in view of Kunert and/or Swanson to obtain a method for securing a panel with a moisture cure polyurethane adhesive bonding material, using a hand-held operator manipulatable dispensing device to dispense the adhesive bonding material via a nozzle of the dispensing as recited by the claims.

Tschan teaches the adhesive is pumped from a storage container and transported through a heatable hose, wherein partial cross-linkage, thus partial curing, takes places. (col. 4, ll. 13-19). Furthermore, Tschan teaches that to fully cure the adhesive, the adhesive is subjected to higher temperatures after the being dispensed. (col. 3, ll. 48-49). Thus, Tschan fails to teach or suggest a moisture cure polyurethane adhesive bonding material or that the curing takes places after dispensing the adhesive from the nozzle a temperature significantly below the heating temperature level.

Kunert teaches automobile glazing with a viscous adhesive mass. (Kunert Abstract). Kunert further teaches the adhesive mass is placed on the surface of the glazing by a calibrated extrusion nozzle of suitable shape which can be guided, for example, by a programmable robot

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or by hand. In the latter case, a guiding device is used to guide the nozzle so that it follows along the edge of the glazing. (col. 3, ll. 19-22). Furthermore, Kunert is silent as to what the nozzle is attached to. Additionally, even if Kunert teaches the nozzle can be guided by a hand, a guiding device is used to guide the nozzle, therefore, Kunert requires an additional guiding devices and thus fails to teach or suggest the adhesive is applied using a hand-held operator manipulatable dispensing device to dispense the adhesive bonding material via a nozzle of the dispensing device. Furthermore, Kunert fails to teach or suggest heating the adhesive in the nozzle to a predetermined temperature prior to discharging with an on-board heater device positioned and configured to heat the adhesive present in the nozzle.

Swanson is directed to an assembly line for activating a ready-to-install heat activated adhesive for attaching a vehicle panel to a vehicle. Thus, Swanson requires an increased temperature after the adhesive is applied to initiate curing of the adhesive and is therefore a heat cured adhesive. Swanson fails to teach or suggest a moisture cure adhesive as recited by the claims. Furthermore, Swanson is directed to an assembly line and therefore fails to teach or suggest the adhesive is applied using a hand-held operator manipulatable dispensing device to dispense the adhesive bonding material via a nozzle of the dispensing device.

Additionally, Tschan, Kunert and/or Swanson fail to teach or suggest providing a method of securing a panel with a moisture cure polyurethane adhesive bonding material, using a hand-held operator manipulatable dispensing device so that the drive away time of the vehicle can be reduced.

Therefore, neither Tschan, Kunert nor Swanson, alone or in combination, render the features of the pending claims obvious. Withdrawal of the rejection is respectfully requested.

*Tschan, Kunert and/or Swanson, Landrock*

Claims 8-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tschan et al. in view of Kunert and/or Swanson et al. as applied to claim 1, and further in view of Landrock (Adhesives Technology Handbook). Applicants respectfully traverse this rejection. Applicants respectfully reiterate the comments offered above and assert that Tschan in view of Kunert and/or Swanson fail to teach or suggest the elements of the pending claims. These claims are not

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obvious over Tschan in view of Kunert and/or Swanson. Furthermore, Landrock does not remedy the shortcomings of Tschan in view of Kunert and/or Swanson. Landrock is an adhesives technology handbook and is directed to different types of heating equipment for heat cured adhesives. Therefore, Landrock would not lead one of skill in the art to a method of securing a panel with a moisture cure polyurethane adhesive bonding material. Favorable reconsideration is respectfully requested.

Tschan, Kunert and/or Swanson, Hill and/or Duck

Claims 8, 10 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tschan et al. in view of Kunert and/or Swanson et al. as applied to claim 1, and further in view of Hill et al. (US 5,948,194) and/or Duck et al. (US 5,064,494). These claims are not obvious over Tschan in view of Kunert and/or Swanson. Furthermore, Hill and/or Duck does not remedy the shortcomings of Tschan in view of Kunert and/or Swanson. Hill and/or Duck are both directed to heat cured adhesives. Therefore, neither Hill nor Duck would not lead one of skill in the art to a method of securing a panel with a moisture cure polyurethane adhesive bonding material. Favorable reconsideration is respectfully requested.

In view of the above, favorable reconsideration in the form of a notice of allowance is requested. Any questions or concerns regarding this communication can be directed to the undersigned attorney, John J. Gresens, Reg. No. 33,112, at (612)371.5265.

Respectfully submitted,

MERCHANT & GOULD P.C.  
P.O. Box 2903  
Minneapolis, Minnesota 55402-0903  
(612) 332-5300



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JJG:mmm

By

John J. Gresens  
Reg. No. 33,112